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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,487	09/08/2003	Avishai Haim Hochberg	SJO920030060US1	2013

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EXAMINER

ELMORE, STEPHEN C

ART UNIT

PAPER NUMBER

2185

DATE MAILED: 01/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/658,487	<b>Applicant(s)</b> HOCHBERG ET AL.	
	<b>Examiner</b> Stephen Elmore	<b>Art Unit</b> 2185	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 September 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-28 is/are allowed.
- 6) ☒ Claim(s) 29-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.


**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

  
**STEPHEN C. ELMORE**  
**PRIMARY EXAMINER**

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/28/05</u> . | 6) <input type="checkbox"/> Other: _____  |

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#### DETAILED ACTION

1. This Office action responds to the application filed 9/8/2003.
2. Claims 1-42 are presented for examination.

#### *Specification*

3. The disclosure is objected to because:

- a. Specification, paragraph [0032], the following sentence is objected-to:

"The archival system described herein may be implemented as a method, apparatus or article of manufacture using standard programming and/or engineering techniques to produce software, firmware, hardware, or any combination thereof (emphasis added)."

This sentence is objected to because it suggests that an article of manufacture can be considered to be made solely of software, since software alone is one of "any combination thereof". This suggestion is incorrect because software *per se* is not permissible subject matter under 35 USC 101, that is, software alone cannot be considered to be an article of manufacture. A permissible article of manufacture under 35 USC 101 must be a combination of program code written to a suitable recording medium from which a computer processor can execute the stored program code and in so doing accomplish the program code's intended functionality. In this way the combination of stored program and recording medium being used during execution by a processor accomplish the program's intended utility;

- b. Specification, paragraph [0032], the following sentence is objected-to:

"In such cases, the article of manufacture in which the code is implemented may comprise a transmission medium, such as a network transmission line, wireless transmission media, signals propagating through space, radio waves, infrared signals, etc."

This is because while it is correct to say that a transmission medium transmits data (including program code), however, it is not correct to say that a transmission medium "implements" code by the activity of transporting the code. Unlike a conventional data recording media, such as an optical or magnetic disk, which implements stored code as tangible (i.e., physical, structural) changes to the media, in the above language the transmission medium does not "implement" stored code while the code is being transmitted.

Examiner's Note: For example, in the case of an optical medium storing code the "implementing" of the code means that certain regions of the optical disk material have been tangibly (physically, structurally)

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altered so that these regions reflect laser light differently when they have stored a "0" rather than a "1". And, in the optical disk, a particular region is tangibly changed by the implementation process, for example, a write consists of a laser "burn" of that region to make a tangible difference in the media. However, in the case of a wired (or wireless) network path over which so-called "implemented" code is being transmitted, there is no tangible (physical, structural) change to the transmission media, whether air, space, optical fibre, or copper wire.

In the above language there is no equivalent process to the laser "burn" in relation to the transmission medium when a transmitted electromagnetic carrier wave transports embedded program code across a transmission path of a network. The transmission of program code across such a transmission medium is an entirely different process than the storage of program code in a storage medium because the transmission media does not experience any tangible, structural change by the process of transmission (or the so-called "implementation").

See *State Street*, 149 F.3d at 1373, 47 USPQ2d at 1601-02. MPEP 2106. *"The claimed invention as a whole must accomplish a practical application. That is, it must produce a "useful, concrete and tangible result." (emphasis added)"*.

In the above language,

1) the claimed invention (program code being transported across a wireless medium) does not accomplish any useful, concrete and tangible result because the code does not tangibly, structurally alter the medium, and

2) the code has no functionality in the state of being transmitted because the embedded code cannot be executed as there does not exist any known processor able to execute the transmitted program code while in the process of being transmitted. Before the transmitted program code can be executed it must first be received and extracted from the transmission encoded carrier wave, and then stored on a suitable computer readable medium from which it can be executed by a processor as a functional part of a computer machine which includes the processor and the stored code. Until these steps are taken the transmitted program code has no program functionality, but instead, in the transmitted state the transmitted code can only represent, or is equivalent to, non-functional descriptive material.

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Therefore, the Specification erroneously asserts that program code being transmitted across a transmission medium somehow represents "implemented code", but this is not true because the Specification does not teach details of how such an "implementation" makes any tangible (physical, structural) alteration of the transmission media, or how the transmitted code can be executed by a processor while in the state of being transmitted. The state of the above language would require undue experimentation by one of ordinary skill in the art to read Applicant's disclosure and then to accomplish tangible implementation of the transmitted program code or to accomplish execution of the transmitted program code. Further, notwithstanding that the transmitted code clearly is contained in the transmission medium (because it is transported through the medium), nevertheless, "contained" and "implemented" do not mean the same thing.

Applicant's interpretation contradicts *State Street*, because first, when program code is being transmitted in any of the examples of transmission media listed above, no tangible (physical, structural) change has been made to the transmission media by the so-called "implementation" of the transmitted code, and second, program code being transmitted cannot be executed by any known processor to perform any of the code's intended functionality, because in that state the transmitted code remains nothing more than non-functional descriptive material;

c. in the Specification, paragraph [0032], the following sentence is objected-to:

"Thus, the "article of manufacture" may comprise the medium in which the code is embodied."

Because this sentence, taken together with the previous sentence, further suggests that program code can be "embodied" in an intangible medium such as signals propagating through space, or that program code can be "embodied" in a tangible network path which merely carries encoded electromagnetic signals. However, for all the reasons noted above in paragraphs (a) and (b), and incorporated herein, these concepts do not reflect a permissible or correct interpretation of what kinds of media can "embody" program code under 35 USC § 101 in view of *State Street* since in neither case does such code tangibly (structurally, physically) alter the transmission media (whether air, space, or wire) nor can such code be executed by any processor to attain the intended code's functionality while in the state of transmission.

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Correction is required.

***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 29-42 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims are directed towards an article of manufacture...(that) causes operations to be performed, and are non-statutory because they encompass subject matter and/or embodiments which do not fall within a statutory category.

The meaning of "article of manufacture" as disclosed in the Specification, paragraph [0032], covers non-statutory embodiments which improperly include network transmission lines (interpreted as wired and wireless transmission), wireless transmission media, signals propagating through space, radio waves, infrared signals, etc. For reasons as already discussed in the objections to the Specification, paragraph 3(a)-(c), which are incorporated herein, the claimed invention does not properly cover only statutory subject matter (e.g., program code being transmitted over wired or wireless transmission media) because in such a case there is no tangible embodiment of program code in a computer readable medium executed by a processor, see Specification paragraph [0032], and further because the disclosed program code being transmitted across the transmission media cannot be executed by any known processor, and therefore, the transmitted program code lacks functional capability because, absent execution, it cannot cause any of the claimed operations to be performed, and so, in the state of being transmitted the program code represents nothing more than non-functional descriptive material. Further, under 35 USC 101 signals propagating through space, radio waves, and infrared signals are not permissible "articles of manufacture" because they have no tangible embodiment.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art

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to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 29-42 are rejected under 35 U.S.C. 101 because the claimed invention is not supported by either a specific and substantial asserted utility or a well established utility.

In these claims, directed to an article of manufacture...(that) causes operations to be performed, the claimed article of manufacture refers to code implemented in a computer readable medium, where according to the disclosure, the computer readable medium covers a transmission medium including: a network transmission line, wireless transmission media, signals propagating through space, radio waves, and infrared signals. See Specification, paragraph [0032]. These instances of transmission media are not supported by either a specific and substantial asserted utility or a well established utility in association with any inherent properties of the code that is being transported, because at no time during the transmission of code is any code capable of being executed to cause any operations to be performed, since no code is executed while transmitted, and any code in the state of being transmitted is merely the equivalent of transported data, that is, it is equivalent to non-functional descriptive material, since data in such a state cannot be executed to achieve any functionality of the code. Broadly speaking, no code being transmitted across a transmission media is ever executed during transmission to achieve the functionality of the transmitted code. The utility of a transmission line is only to accomplish the successful transmission of the embedded code, no matter what the code's purpose is. Otherwise, there cannot be any other utility for the combination of the transmission media and the code being transmitted, other than the accomplishment of the transported code, and this includes any kind of inferred specific utility the embedded code may have when the code is properly stored on a suitable computer readable medium under 35 USC 101 and then executed by a processor. In summary, the transmission media carrying embedded program code does not interact with any kind of known transmission processor having the ability to execute the embedded transmitted code, therefore, there is no actual utility for the transmitted code while in the state of being transmitted other than the utility of the non-functional descriptive material being successfully

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transmitted. The transmitted code therefore cannot be used to accomplish the claimed "operations to be performed" while being transmitted.

7. Claims 29-42 are also rejected under 35 U.S.C. 112, first paragraph. Specifically, since the claimed invention is not supported by either a specific and substantial asserted utility or a well established utility for the reasons set forth above, one skilled in the art clearly would not know how to use the claimed invention as claimed.

***Allowable Subject Matter***

8. Claims 1-7 and 15-21 appear allowable because the following features in the independent claims taken in combination with the remaining limitations of the independent claims are not found in and or are not obvious in view of the prior art of record,

"(means for) processing a storage policy associated with the stored object to determine whether the stored object has expired according to the storage policy in response to determining that the retention protection mechanism is set".

9. Claims 8-14 and 22-28 appear allowable because the following features in the independent claims taken in combination with the remaining limitations of the independent claims are not found in and or are not obvious in view of the prior art of record,

"(means for) receiving an object to store and a storage policy associated with the object, wherein the storage policy specifies a retention period" and "(means for) determining whether the storage policy comprises an event based retention policy".

***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen Elmore whose telephone number is (571) 272-4436. The examiner can normally be reached on Mon-Fri from 9:30-6:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Kim can be reached on (571) 272-4182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

January 19, 2006

  
**STEPHEN C. ELMORE**  
**PRIMARY EXAMINER**